AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A local assurance management device ~~(D)~~ for a network element ~~(NE)~~ in a communication network ~~(N)~~ equipped with a network management system ~~(NMS)~~, where said ~~equipment element~~network element ~~(NE)~~ presents a chosen configuration and ~~includes~~ comprises means ~~(MM)~~ for ~~the measurement of~~ measuring parameter values in the network, and a built-in management information base ~~(MIB)~~ used to store management data which are representative of said measured parameter values, wherein the device comprises ~~characterized in that it includes~~ management means ~~(MAE)~~ which are arranged to adapt the configuration of said ~~equipment element~~network element ~~(NE)~~ according to at least said management data stored in said management information base ~~(MIB)~~, and chosen rules, known as assurance rules, defining a local assurance policy, where said adaptation comprises a change to a measurement policy parameter and/or a change to a report transmission policy to said network management system ~~(NMS)~~.

2. (currently amended): A device according to claim 1, ~~characterized in that~~wherein said management means ~~(MAE)~~ are arranged so as to adapt said configuration ~~in~~ according to information data coming from at least one other network element ~~(NE)~~.

3. (currently amended): A device according to claim 1, ~~characterized in that~~wherein said adaptation comprises a change to ~~its~~ a method of operation of said network element.

4. (currently amended): A device according to claim 1, ~~characterized in that~~wherein said management means ~~(MAE)~~ include analysis means ~~(SM1)~~ arranged so as to determine, in accordance with certain of said chosen assurance rules, information data representing the changes in time, over a chosen interval, of parameter values in the network stored in said management information base ~~(MIB)~~.

5. (currently amended): A device according to claim 4, ~~characterized in that~~wherein said analysis means ~~(SM1)~~ are arranged so as to deliver information data representing a trend analysis and/or an analysis of profiles or signatures and/or an analysis of discontinuity and/or an aggregation of network parameter values.

6. (currently amended): A device according to claim 4, ~~characterized in that~~wherein said analysis means ~~(SM1)~~ are configurable.

7. (currently amended): A device according to claim 6, ~~characterized in~~wherein ~~that~~ said analysis means ~~(SM1)~~ are arranged so as perform fresh calculations relating to the network parameters received from said network management system ~~(NMS)~~.

8. (currently amended): A device according to claim 1, ~~characterized in that~~wherein said management means ~~(MAE)~~ include alarm means ~~(SM2)~~ able to trigger the sending of an alarm

and/or of information data to said network management system ~~(NMS)~~ and/or to at least one other network element ~~(NE)~~, in accordance with certain of said chosen assurance rules.

9. (currently amended): A device according to claim 8, ~~characterized in that~~wherein said alarm means ~~(SM2)~~ are configurable.

10. (currently amended): A device according to claim 8, ~~characterized in that~~wherein said information data and said alarms are representative of the results of analyses performed by ~~said~~ an analysis means ~~(SM1)~~, and/or of data aggregation, effected by said analysis means ~~(SM1)~~, and/or of a network parameter value stored in said management information base ~~(MIB)~~.

11. (currently amended): A device according to claim 1, ~~characterized in~~wherein ~~that~~ said management means ~~(MAE)~~ include network observation means ~~(SM3)~~ defining a flow measurement agent of the end-to-end type, arranged so as to determine information data which are representative of said flow of the end-to-end type in accordance with certain of said chosen assurance rules.

12. (currently amended): A device according to claim 11, ~~characterized in that~~wherein said network observation means ~~(SM3)~~ are configurable.

13. (currently amended): A device according to claim 1, ~~characterized in that~~wherein said management means ~~(MAE)~~ include means for the management of service level agreements or

SLAs ~~(SM4)~~, arranged so as to determine information data representing said agreement management in accordance with certain of said chosen assurance rules.

14. (currently amended): A device according to claim 13, ~~characterized in that~~wherein said service level agreement management means ~~(SM4)~~ are configurable.

15. (currently amended): A device according to claim 2, ~~characterized in that~~wherein said management means ~~(MAE)~~ include monitoring means ~~(SM5)~~ which are able to manage the operation of ~~said~~ an analysis means ~~(SM1)~~, of ~~said~~ an alarm means ~~(SM2)~~, of ~~said~~ a network observation means ~~(SM3)~~ and of the service level agreement management means ~~(SM4)~~, in accordance with at least some of said chosen assurance rules.

16. (currently amended): A device according to claim 15, ~~characterized in~~wherein ~~that~~ said monitoring means ~~(SM5)~~ are supplied with information data by said analysis means ~~(SM1)~~ and/or said network observation means ~~(SM3)~~ and/or the service level agreement management means (SM4), and are arranged so as to order said alarm means ~~(SM2)~~ to generate alarms and/or reports in the event of detecting non-compliance with an assurance rule by received the information data.

17. (currently amended): A device according to claim 15, ~~characterized in that~~ wherein said monitoring means ~~(SM5)~~ are arranged in the form of a rule engine storing said chosen assurance rules.

18. (currently amended): A device according to claim 15, ~~characterized in that~~wherein said monitoring means ~~(SM5)~~ are configurable.

19. (currently amended): A device according to claim 1, ~~characterized in that~~wherein said management means ~~(MAE)~~ are capable of being configured by said network management system ~~(NMS)~~ via an application programming interface ~~(API)~~ of said ~~equipment element~~network element ~~(NE)~~.

20. (currently amended): A device according to claim 1, ~~characterized in that~~wherein said management means ~~(MAE)~~ are capable of being configured by said network management system ~~(NMS)~~ via an application programming interface ~~(API)~~ of said ~~equipment element~~network element ~~(NE)~~ and via said management information base ~~(MIB)~~.

21. (currently amended): A device according to claim 19, ~~characterized in that~~wherein said analysis means ~~(SM1)~~ and/or said alarm means ~~(SM2)~~ and/or said network observation means ~~(SM3)~~ and/or said monitoring means ~~(SM5)~~ and/or the service level agreement management means ~~(SM4)~~ are capable of being configured by said network management system ~~(NMS)~~, via said application programming interface ~~(API)~~.

22. (currently amended): A device according to claim 20, ~~characterized in that~~wherein said analysis means ~~(SM1)~~ and/or said alarm means ~~(SM2)~~ and/or said network observation means ~~(SM3)~~ and/or said monitoring means ~~(SM5)~~ and/or the service level agreement management

means ~~(SM4)~~ are capable of being configured by said network management system ~~(NMS)~~, via said application programming interface ~~(API)~~ and via said management information base ~~(MIB)~~.

23. (currently amended): A device according to claim 1, ~~characterized in that~~wherein said management means ~~(MAE)~~ are capable of being configured by said network management system ~~(NMS)~~ using dedicated commands.

24. (currently amended): A device according to claim 23, ~~characterized in that~~wherein said analysis means ~~(SM1)~~ and/or said alarm means ~~(SM2)~~ and/or said network observation means ~~(SM3)~~ and/or said service level agreement management means ~~(SM4)~~ and/or said monitoring means ~~(SM5)~~ are arranged so as to be capable of being configured by said network management system ~~(NMS)~~ using dedicated commands.

25. (currently amended): A device according to claim 23, ~~characterized in that~~wherein said commands are of the "Command Line Interface" type.

26. (currently amended): A network element ~~(NE)~~ for a communication network ~~(N)~~ equipped with a network management system ~~(NMS)~~, where said ~~equipment element~~network element ~~(NE)~~ presents a chosen configuration and including means ~~(MM)~~ for the measurement of parameter values in the network and a management information base ~~(MIB)~~ capable of storing management data representing said ~~measured values~~parameter values, ~~characterized in that~~wherein ~~it~~the network element ~~includes~~ comprises a device or arrangement (D) in accordance with claim 1.

27. (currently amended): ~~An equipment element~~A network element in accordance with claim 26, ~~characterized in that it includes~~further comprising an application programming interface ~~(API)~~, and ~~in that~~wherein said management information base ~~(MIB)~~ is capable of being configured by said network management system ~~(NMS)~~ via said application programming interface ~~(API)~~.

28. (currently amended): ~~An equipment element~~A network element in accordance with claim 26, ~~characterized in that it includes~~further comprising an application programming interface ~~(API)~~, and ~~in that~~wherein said management information base ~~(MIB)~~ is capable of being programmed by said network management system ~~(NMS)~~ via said application programming interface ~~(API)~~.

29. (currently amended): ~~An equipment element~~A network element in accordance with claim 26, ~~characterized in that it~~wherein the network element is chosen from a group which includes at least one of ~~the~~ routers, ~~the~~ switches and ~~the~~ firewalls.

30. (currently amended): A communication network according to claim 26 ~~(N)~~, ~~containing~~ comprising a network management system ~~(NMS)~~, wherein the communication network comprises~~characterized in that it includes~~ a large variety of network ~~equipment~~ elements ~~(NE) in accordance with claim 26.~~comprising at least one of a server equipped with a firewall, a switch, an edge router or a core router.

31. (currently amended): A network in accordance with claim 30, ~~characterized in that~~wherein each ~~equipment element~~network element ~~(NE)~~ is arranged to deliver alarms and/or information data of various types to said network management system ~~(NMS)~~.

32. (currently amended): A method of managing network technologies comprising:

applying a local assurance management device for a network element in a communication network equipped with a network management system,

wherein said network element presents a chosen configuration and comprises means for measuring parameter values in the network, and a built-in management information base used to store management data which are representative of said measured parameter values, and

wherein the device comprises management means which are arranged to adapt the configuration of said network element according to at least said management data stored in said management information base, and chosen rules, known as assurance rules, defining a local assurance policy, where said adaptation comprises a change to a measurement policy parameter and/or a change to a report transmission policy to said network management system.

~~Use of the device or arrangement, the equipment element~~network element~~, and communication network, in accordance with claim 1, in the network technologies needing to be managed.~~

33. (currently amended): A method according to claim 32, wherein ~~Use in accordance with claim 32, characterized in that~~ said network technologies are chosen from a group which includes transmission networks, ~~in particular of~~comprising at least one of ~~a~~the Wavelength-Division Multiplexing (WDM), a Synchronous Optical NETwork (SONET) and a Synchronous

Digital Hierarchy (SDH) type, management networks, ~~in particular~~ of the Internet-IP and Asynchronous Transfer Mode (ATM) type, and speech networks, ~~in particular~~ of the conventional, mobile and Next Generation Network (NGN) type.